

Abstract

A virtual patient simulates the onset, diagnosis and treatment of all major medical conditions via a medical instructional console. The multimedia simulation, complete with video and audio, allows the patient to develop symptoms, answer questions, and undergo physical examination, monitoring, laboratory and radiological evaluation. The virtual patient responds realistically to medical interventions and visualizes medical ailments and treatments from "within". Exemplary organs available for visualization include a beating heart, flowing blood, breathing lungs and a thinking brain. Medical conditions include clots forming and embolizing, lungs collapsing, and the heart being defibrillated. The virtual patient provides a complete human body heretofore impalpable, allowing a user to navigate throughout the human body, observing the organs in simulated motion during both normal and pathological physiology, while demonstrating the internal effects of medications and procedures on these organs.